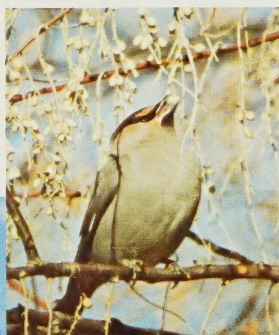


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BACKYARD HABITAT

BY: GERALD B. McKEATING WILLIAM A. CREIGHTON



Ministry of
Natural
Resources

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BACKYARD HABITAT

BY: GERALD B. McKEATING WILLIAM A. CREIGHTON

Every year, many acres of wildlife habitat are lost in the Province of Ontario through the process of urbanization. New highways, hydro transmission line corridors, and housing subdivisions leave their imprint upon the provincial countryside. In order to increase yield, modern agricultural practices have made the hedgerow and its associated wildlife obsolete. Loss of habitat is the most important single factor for a reduction in numbers of wildlife.

Urbanization of the countryside is not a new phenomenon, but the unprecedented extent and rapidity of environmental change today is difficult to grasp. In years past, limited technology made the clearing of land a difficult and time consuming process. Now, however, land that used to take weeks to clear can be levelled in a day. A sub-

urban woodlot can be transformed virtually overnight from a haven for wildlife to a shopping centre or subdivision.

The future holds little hope for improvement; in fact, if population projections are correct, most of Southern Ontario will soon be one vast urban complex. The planners of the future foresee a population for the Toronto Centred Planning Region of 8 million by the year 2000, an increase from 3.6 million in 1966.* Growth projections for other regions indicate similar rates of increase. Even today, over 80% of Ontario residents are classified as urban dwellers.

What hope is there of observing wildlife in the urban situation, in view of these environmental pressures? Anxiety for the future of wildlife populations is understandable in view of

the urban encroachment on wildlife habitat.

When faced with major projects that will destroy much wildlife habitat, such as a second Toronto airport, one can easily become a fatalist regarding any individual effort to preserve wildlife habitat. Each individual can, however, in a small but important way, take steps to provide habitat by developing on his own property the habitat requirements which help to maintain or increase wildlife populations.

Established cities and towns have a remarkable diversity of wildlife species. In the open spaces where trees and shrubs have been allowed to remain, bird life is abundant, particularly during migration. Even in the heart of a city, migratory birds can be seen for they are attracted to any small oasis of green



The Blue Jay is a common visitor to the backyard.



amidst the concrete and steel. Studies by some individuals and groups show a variety of wildflowers, bird species, and other animal life in areas where suitable habitat exists. Nighthawks can be observed on a warm summer night in downtown Toronto, their calls rising above the noise of city life. Killdeer nest on flat gravelled roofs of office buildings and kestrels can be seen pursuing their prey that roost on buildings. A hollow of a tree in your local park may be the home of a screech owl. Squirrels, raccoons, chipmunks and rabbits inhabit parks, ravines and older residential areas. Some ravines, depending upon the preservation of the natural habitat, may even be home to the occasional fox, porcupine, and other animal species. Most of us have had interesting experiences with urban wildlife.

People who live in older homes or suburban divisions, usually desire their grounds to be attractively landscaped. With careful planning, an individual can not only beautify his surroundings, but can also provide important habitat for a variety of species, even in our most monotonous checkerboard subdivisions. Unquestionably, older established city areas attract a higher wildlife population than suburban areas owing to an abundance of established trees and shrubs, but with careful planning and planting, suburban lots can become in time equally attractive for some species.

FOOD AND COVER

An adequate food and cover supply are prerequisites for the attraction of wildlife. To achieve optimum habitat for your property, trees, shrubs and plants of diverse characteristics should be planted. Tall trees, such as most oaks or maples, provide an upper storey canopy for birds like red-eyed vireos, scarlet tanagers, and orioles. The existence of this habitat is most often limited to long established districts within a city, or on large semi-rural estate lots. It may not be practical for the average subdivision home owner to consider planting these species because the average lot is too small to accommodate them.



Squirrels are one of the most abundant mammals attracted to an urban area.

On the other hand, diversified habitat may be achieved by the selection of plantings that will provide ground cover or low shrubbery for species that prefer habitat either close to or on the ground. Song sparrows and rufous-sided towhees are examples.

Shrubs and trees of medium height will attract other species. In other words, all bird species have their habitat preferences. The more habitat variety you can provide, the greater are your chances of attracting a variety of bird species.

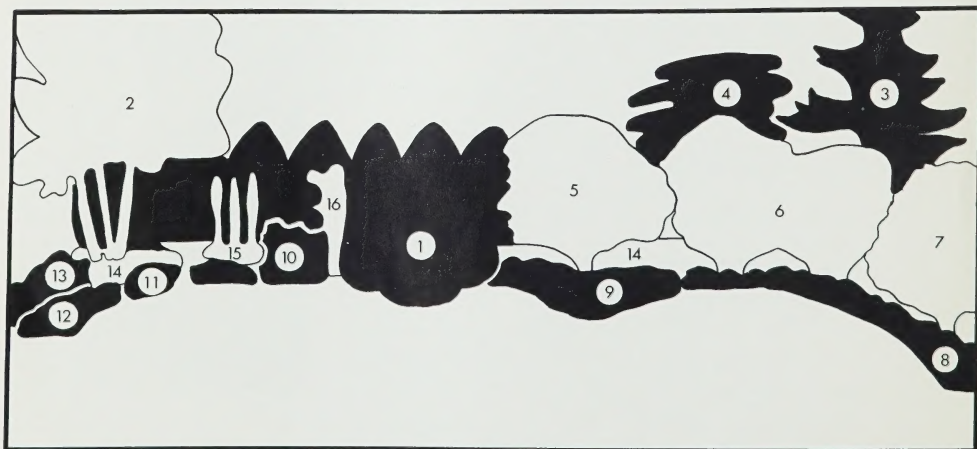
As with habitat, distinct preferences are exhibited by birds in their food requirements. Some species prefer soft berries while others are attracted to flower seeds or to seeds from conifer cones. Many other species are insectivorous and feed on the insects that abound on the shrubbery or the bark of trees. Young nestlings of all species are fed the soft insect larvae that are found about the leaves.

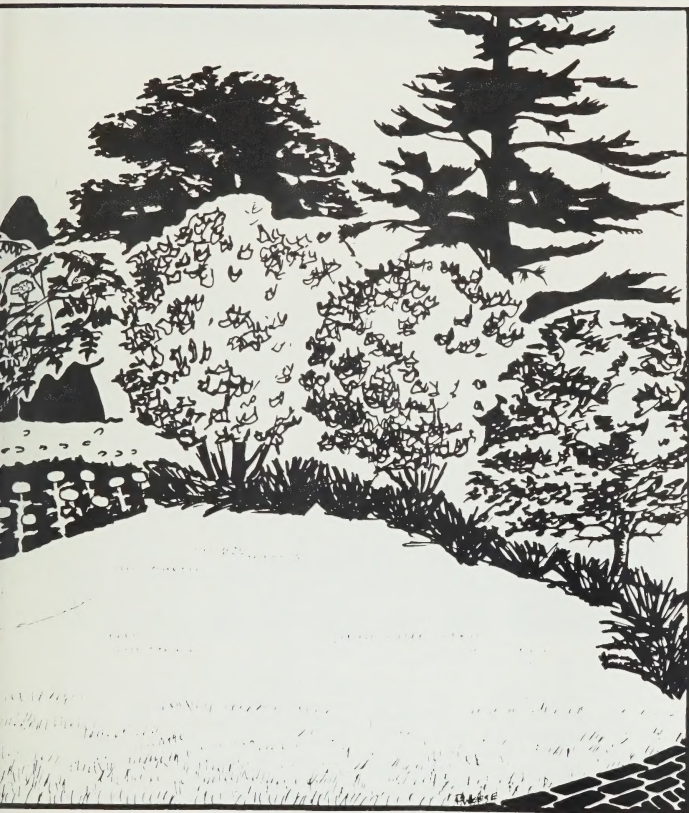
It is important not to overlook the provision of water. If none naturally exists, supply a bird bath that is gently sloped. This will allow the birds to stand in it for drinking or bathing.

A stone pile will provide adequate cover for chipmunks. Nest boxes plac-



Manduca Caterpillars and other invertebrates are important food sources for young nestlings.





KEY TO GARDEN PLANTINGS

1. White Cedar Hedge
2. White Birch
3. White Pine
4. Choke Cherry
5. Elderberry
6. Highbush Cranberry (2)
7. Hawthorn
8. Yew
9. Marigold
10. Zinnia
11. Petunia
12. Dwarf Zinnia
13. Aster
14. Bearberry
15. Hollyhock
16. Sunflower

W. A. Creighton



This is an example of a clump planting with the evergreens at the base forming the ground cover. Bird seed sprinkled on the ground beneath the shrubbery will help to attract ground feeding birds.

ed about twenty feet above the ground are attractive to squirrels, and a brush pile provides shelter for cottontails.

PLANNING, PREPARATION AND CARE

The selection of trees and shrubs is limited only by the size of your property and the degree of hardness for the region where you live. Before acquiring any plantings, you should first do some careful planning. Draw a layout. Locate on it the position of the selected plants. Become familiar with growth characteristics: how tall is it, does it spread rapidly, is the dropped fruit or seed unsightly, or are any of your plantings disease vectors for other plants? Consult your neighbours and advise them of your objectives. They may wish to participate. When purchasing plant material, ensure that you obtain from your nurseryman complete information and planting directions.

In the design of your backyard, you should shape the plot to give a maximum edge effect. Shrub and tree plantings should form clumps or hedgerows, thereby providing a dense habitat for protection from predators and inclement weather.

For hedgerows, a minimum width of 10 feet is required by whatever length is desired. A row of shrubs or trees spac-

ed about 6 feet apart and staggered in two rows will provide maximum shelter.

In clump plantings an evergreen should form the centre of the clump with surrounding shrubs ringing the circle, spaced 4 to 6 feet apart. The plant arrangement can be reversed by planting a tree such as a flowering crab with the shrubs being low growing evergreens.

Proper preparation of the site prior to planting is essential. For best results, prepare the ground in the autumn prior to the spring planting season, adding manure or commercial fertilizer. Follow the directions of your nurseryman carefully.

Proper cultivation of the newly planted stock will assist development. The soil on both sides of the hedgerow should be tilled once or twice a year and the grass trimmed in the clump plantings. The shrubs and trees can be fertilized to increase the rate of growth. To reduce weeds and to conserve moisture, mulch the ground with wood chips, sawdust or straw manure.

WHAT TO PLANT CONIFERS

Evergreens are indispensable in a properly balanced planting program because they provide shelter, food and

interesting dark background for shrubs and flowers. On large lots they can be planted in clumps of 3 to 5 trees, six feet apart, or in double rows to form wildlife travel lanes along the edge of the property. A single evergreen planted on a small lot and surrounded by shrubs can provide some protection. Suitable species include white cedar, white spruce, and if your lot is large enough, eastern hemlock and white pine.

TREES AND SHRUBS ATTRACTIVE FOR SEED-EATERS

In addition to conifers, seed-eating birds find alders and birches attractive. The cones provide an abundance of seed that is eagerly sought by such winter birds as common redpolls, and pine siskins.

The winged-seeds of the Manitoba Maple are particular favourites of evening grosbeaks. An advantage of this tree is that it is exceptionally fast growing and can provide food, shade and cover in a relatively short period of time. The rapid growth can be a disadvantage however, to the small lot owner as the tree can soon crowd out other desirable species.

Acorns rate close to the top of any wildlife food list because they are a staple in the diet of a large number of wildlife species, particularly during the critical winter season. Blue jays, woodpeckers and squirrels are especially partial to oak trees.

TREES AND SHRUBS ATTRACTIVE FOR FRUIT-EATERS

The European mountain ash is a highly attractive ornamental tree. The ripe fruit is avidly eaten by robins, cedar waxwings and other birds. Should the fruit not be eaten in the fall, it will persist throughout the winter, adding a touch of bright colour to the yard and providing a ready food supply for groups of wandering songbirds like waxwings.

Native hawthorns should not be overlooked in any backyard planting, for they possess colourful blossoms in the spring and fruit that can persist throughout the winter. The protective thorns make the tree excellent cover for shelter and breeding.



Common elderberry



Bohemian Waxwing feeding on berries of Russian Olive.

Autumn olive is a versatile shrub that can reach as high as 15 feet when fully grown. It offers suitable nesting habitat for many songbirds, and as a plant barrier attracts rabbits and pheasants to the shelter of its spreading branches. The berries ripen in clusters and persist on the branches throughout the winter.

The native viburnums, dogwoods and honeysuckles are useful shrubs because they provide a desirable landscape effect and adequate sites for shelter, nesting, and a reliable food supply. The native high-bush cranberry has brilliant scarlet-coloured autumn foliage and bright red berries that cling to the branches over winter. Although normally unpalatable to birds, the berries provide an emergency food supply. Nannyberry, one of the taller viburnums, reaches a height of between 20 to 30 feet. Persisting until late fall and early winter, the blue-black fruit is attractive to the brown thrasher.

Fruits of most native dogwoods provide in late summer or early fall, so provide little in the way of winter food. The woody branches of the red-osier dogwood, however, present a pleasing contrast against the winter snow.

Honeysuckles are often grown for their flowers and are attractive to hummingbirds. Elderberries provide an important food source, as the dark, mature fruit is ravenously eaten by most songbirds, including thrushes and

warblers. Once discovered, the fruit is eaten within a few days. Common elderberry is well known in the east for its showy flat-topped clusters of small white flowers and is a common sight along roadsides, streams and hedgerows.

VINES AND GROUND COVER

The dense foliage of wild grape offers unusually good cover for small birds. The fruit is a favourite food of many songbirds, especially flickers, thrushes and cardinals. The bark is often used in nest construction. Planted along a sunny fence, grapevines make a good visual barrier.

Another excellent vine is the Virginia creeper. The grape-like clusters of black berries are important autumn and winter foods. Grown over walls, trellises or large trees, the brilliant scarlet foliage in autumn is particularly attractive.

Although the utility to wildlife is limited, the bright orange fruit of the bittersweet produces seeds which are eaten by some birds. The main value of this vine is decorative, and it can be grown as a vine or ground cover.

Ground-feeding birds such as dark-eyed juncos and white-throated sparrows benefit from the provision of ample ground cover. The low spreading evergreen junipers provide excellent cover and can be planted along the edge of the patio or at the base of specimen trees. Because they are carriers of apple rust, they should not be planted near apple orchards.

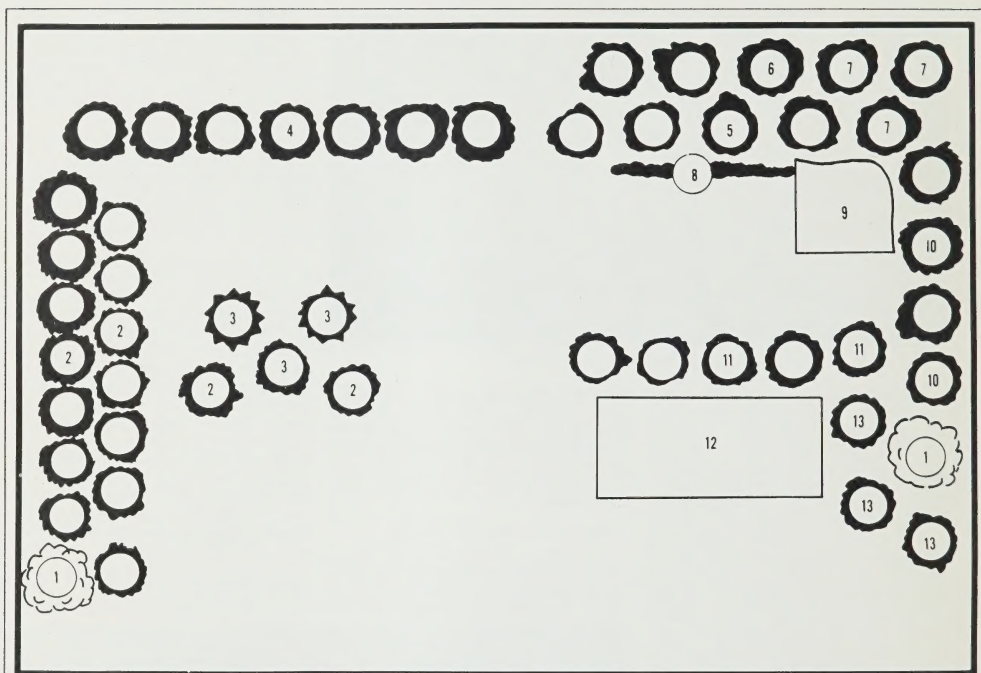
Crown vetch, bearberry, bunchberry and partridgeberry are effective ground covers for rock gardens or beneath trees. With the exception of crown vetch, all require acid soil and would therefore grow best in the bare earth beneath conifers.

FOOD PATCHES AND THE ROLE OF FLOWERS

Patches of carefully selected flowers will provide an important source of food for seed eaters during the fall and winter.



Sunflower patches left standing over winter provide an important source of food.



Food patches need not be large. When planted in clumps along hedgerows or in narrow strips, they are capable of attracting such birds as goldfinches, juncos and other seed-eating birds. Commonly cultivated plants that produce an abundance of seed include sunflowers, cosmos, asters and zinnias. These plants can be left standing over winter in order to provide a ready source of food. Varieties of sorghum and millet can also be used for the same purpose.

While annual plants produce an abundant seed crop, the flowers themselves can be attractive to butterflies and hummingbirds. Seemingly to prefer red, orange or purple flowers, hummingbirds readily visit morning glories, honeysuckles, lilies, petunias,

hollyhocks and columbine. Jewel-weed and trumpet creeper are also favourites. A specialized flower garden can be planted to attract hummingbirds by planting a variety of their favourite blooms.

CONCLUSION

The creation of a wildlife garden will produce many dividends in the years to come, but do not set your expectations too high at first. Given suitable habitat, though, it will not take long before flashes of colour and melodious song are integral parts of your own backyard. Not only will wildlife benefit, but the often dreary and monotonous cityscape will be softened and enhanced, making it a better place to live for all of us.

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1. White Birch
2. Autumn Olive
3. Clump of Red Pine
4. Row of High-bush Cranberry
5. Row of Multiflora Rose
6. Row of High-bush Cranberry
7. Cedar clump, Hawthorn and Wild Grape
8. Food plot of Sunflowers
9. Food plot of Corn (stalks left standing over winter)
10. Row of Russian Olive and Red-osier Dogwood
11. Row of Honeysuckle
12. Vegetable Garden
13. Mixed row planting of Autumn Olive, High-bush Cranberry, Nannyberry, Silky Dogwood

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These pictures illustrate an actual suburban backyard in Metropolitan Toronto, six years after planting to provide wildlife habitat. The schematic yard plan is opposite.

SCIENTIFIC NAMES OF TREES AND SHRUBS MENTIONED IN THIS BOOKLET

Common Name	Scientific Name	Common Name	Scientific Name
Maples	<i>Acer spp.</i>	Russian olive	<i>Elaeagnus angustifolia</i>
Manitoba Maple	<i>Acer negundo</i>	Bearberry	<i>Arctostaphylos uva-ursi</i>
Alder	<i>Alnus spp.</i>	Oaks	<i>Quercus spp.</i>
White birch	<i>Betula papyrifera</i>	Crown vetch	<i>Coronilla varia</i>
Honeysuckle	<i>Lonicera spp.</i>	White spruce	<i>Picea glauca</i>
Native High-bush cranberry	<i>Viburnum trilobum</i>	White pine	<i>Pinus strobus</i>
Nannyberry	<i>Viburnum lentago</i>	Red pine	<i>Pinus resinosa</i>
Common elderberry	<i>Sambucus canadensis</i>	Eastern hemlock	<i>Tsuga canadensis</i>
Bittersweet	<i>Celastrus scandens</i>	European mountain ash	<i>Sorbus aucuparia</i>
Native dogwoods	<i>Cornus spp.</i>	Native hawthorn	<i>Crataegus spp.</i>
Red-osier dogwood	<i>Cornus stolonifera</i>	Multiflora rose	<i>Rosa multiflora</i>
Silky dogwood	<i>Cornus amomum</i>	Common choke cherry	<i>Prunus virginiana</i>
Bunchberry	<i>Cornus canadensis</i>	Partridgeberry	<i>Mitchella repens</i>
White cedar	<i>Thuja occidentalis</i>	Yew	<i>Taxus spp.</i>
Juniper	<i>Juniperus spp.</i>	Wild grape	<i>Vitis vulpina</i>
Autumn olive	<i>Elaeagnus umbellata</i>	Virginia creeper	<i>Parthenocissus quinquefolia</i>



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